Remarks

Claims 1-3, 5, 7-9, 11, 15, 17-23, 25, 26, 29-32, and 36-55 were previously pending in this Application before entrance of the present Amendment. Claims 1, 2, 5, 7, 8, 11, 15, 17-23, 25, 26, 29, 36-42, 49-52, and 54 stand rejected by the Examiner, and claims 3, 9, 12, 30-32, 43-48, 53, and 55 have been withdrawn from consideration by the Examiner at this time. Claims 1, 2, 5, 8, 18, 22, 23, 26, 38, 39, and 41 have been amended by this Amendment, and claims 3, 4, 6, 7, 9, 10, 12-17, 19, 24, 25, 27, 28, 33-35, 40, and 44-53 have been canceled previously or are canceled by this Amendment. As a result, claims 1, 2, 5, 8, 11, 15, 17, 20-23, 26, 29, 36-39, 41, 42, and 54 are pending in this case and are under consideration by the Examiner. No new matter has been added to this Application by the present Amendment. Applicant reserves the right to pursue subject matter canceled from the pending claims in a future application claiming priority to the present application. Applicant respectfully requests reconsideration of this case as amended.

Each of the rejections levied by the Examiner in the outstanding Office Action is discussed in turn below.

Rejections under 35 U.S.C. § 112, first paragraph

The Examiner has rejected claims 1, 2, 5, 7, 8, 11, 15, 17-23, 25-26, 29, 36-42, 49-52, and 54 under 35 U.S.C. § 112, first paragraph, for lack of enablement. The Examiner maintains that "the specification, while being enabling for R2 to be an alkyl or an alkyl substituted by OH and R1 [$R_{1\text{-}1}$] to be an alkyl or a phenyl or N(CH3)(OCH3) does not provide enablement for these groups to be substituted by the laundry list given in the claims." Applicant disagrees. However, solely to facilitate the prosecution of the present Application, Applicant has amended the pending claims, thus obviating the present rejection. The amended claims now recite "R_2 is selected from the group consisting of: hydrogen, alkyl, hydroxyalkyl, and alkyloxyalkyl." For the definition of $R_{1\text{-}1}$, the amended claims now include alkyl, phenyl, -$N(CH_3)(OCH_3)$, and substituted alkyl and phenyl. Applicant respectfully submits that one of ordinary skill in the art could make and use the invention commensurate in scope with the amended claims based on the synthetic schemes, working examples, and biological assays for cytokine induction found in the specification. Accordingly, withdrawal of this rejection under § 112 is respectfully requested.

Rejection under 35 U.S.C. § 102

The Examiner has rejected claims 1, 2, 5, 7, 8, 11, 15, 17-23, 25-26, 29, 36-42, 49-52, and 54 under 35 U.S.C. § 102(e) as being anticipated by U.S. 2005/0070460 ("the '460 publication"), U.S. 2007/0292456 ("the '456 publication"), WO 2005/0162373 ("the '373 publication"), and WO 2005/016275 ("the '275 publication"). Applicant disagrees.

Regarding the '460 publication, Applicant respectfully submits that this publication does not disclose compounds of the recited genus found in claim 1. If the Examiner wishes to maintain the rejection, Applicant requests that the Examiner point to specific disclosure of compounds within the genus of claim 1 in the '460 application.

The compounds disclosed in the '456 publication also do not anticipate the invention of the amended claims. Specifically, the '456 publication does not teach compounds with substituents at R_2 and -X-Z-R_{1-1} (where Z is -C(O)-) as in the amended claims. Again, Applicant requests that the Examiner point to specific disclosure of compounds within the genus of claim 1 if the rejection is to be maintained.

Applicant was not able to find the published PCT application, WO 2005/0162373. Applicant believes the Examiner meant to cite WO 2005/016273 ("the' 273 publication"). The Examiner is invited to correct the Applicant if this is incorrect. The compounds disclosed in the '273 publication also do not anticipate the invention of the amended claims. Specifically, the '273 publication does not teach compounds with substituents at R_2 and -X-Z-R_{1-1} (where Z is -C(O)-) as in the amended claims. Again, Applicant requests that the Examiner point to specific disclosure of compounds within the genus of claim 1 if the rejection is to be maintained.

The compounds disclosed in the '275 publication also do not anticipate the invention of the amended claims. Specifically, the '275 publication does not teach compounds with substituents at R_2 and -X-Z-R_{1-1} (where Z is -C(O)-) as in the amended claims. Again, Applicant requests that the Examiner point to specific disclosure of compounds within the genus of claim 1 if the rejection is to be maintained.

Withdrawal of these rejections under §102 is respectfully requested.

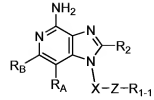
Rejection under 35 U.S.C. § 103

The Examiner has rejected claims 1, 2, 5, 7, 8, 11, 15, 17-23, 25-26, 29, 36-42, 49-52, and 54 under § 103 as being obvious in view of U.S. Patent 7,091,214 ("the '214 patent"). The present Application and the '214 patent were, at the time the invention of the claimed invention in the present Application was made, owned by 3M Innovative Properties Company. Since the '214 patent is prior art to the present Application only under § 102(e), and the present Application and the'214 patent were commonly owned at the time the claimed invention was made, Applicant respectfully submits that under § 103(c) the subject matter of the '214 patent "should not preclude patentability" under § 103. Applicant therefore requests that this rejection be removed.

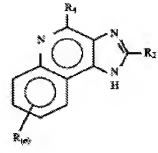
The Examiner has also rejected unspecified claims of the present Application under § 103 as being obvious over WO 2005/016275 ("the '275 publication"). The present Application and the '275 publication were, at the time the invention of the claimed invention in the present Application was made, owned by 3M Innovative Properties Company. Since the '275 publication is prior art to the present Application only under § 102(e), and the present Application and the'275 publication were commonly owned at the time the claimed invention was made, Applicant respectfully submits that under § 103(c) the subject matter of the '275 publication "should not preclude patentability" under § 103. Applicant therefore requests that this rejection also be removed.

In the Office Action, the Examiner also stated that claims 1 , 2, 5, 7, 8, 11, 15, 17-23, 25-26, 29, 36-42, 49-52, and 54 of the present Application are rejected over U.S Patent 6,756,747. However, the subject matter of U.S Patent 6,756,747 is unrelated the subject matter of the present Application. Applicant believes that the Examiner meant to refer to U.S Patent 5,756,747 (the '747 patent) rather than the U.S Patent 6,756,747. The Examiner is invited to correct the Applicant if this is incorrect. Applicant respectfully disagrees that the claimed invention is obvious in view of the disclosure of the '747 patent.

Applicant respectfully submits that the claimed invention is not obvious in view of the '747 patent. The structural differences between the claimed compounds of the present Application as shown in the formula below:



wherein Z is C(O), and the compounds of the '747 patent as shown in the formula below:



wherein R_4 is chlorine or hydroxyl, are significant and are not obvious. There are no teachings or suggestions pointed out by the Examiner to modify H to be the -X-Z-R_{1-1} or to modify R_4 to be $-NH_2$ as in the claimed invention of the present Application.

The Federal Circuit recently ruled that a structural similarity *and* some motivation in the prior art are both required to establish a *prima facie* case of obviousness in the chemical arts. *Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, 492. F.3d 1350 (Fed. Cir. 2007). Applicant respectfully submits that the Examiner's rejection does not satisfy these two requirements.

> We have held that "structural similarity between claimed and prior art subject matter, proved by combining references or otherwise, where the prior art gives reason or motivation to make the claimed compositions, creates a prima facie case of obviousness." *Dillon*, 919 F.2d at 692. In addition to structural similarity between the compounds, a prima facie case of obviousness also requires a showing of "adequate support in the prior art" for the change in structure. *In re Grabiak*, 769 F.2d 729, 731-32 (Fed. Cir. 1985).

The Examiner has not shown "adequate support in the prior art" for the change between the instantly claimed compounds and the compounds of the '747 patent. Accordingly, withdrawal of this rejection is respectfully requested.

Double Patenting Rejection

Claims 42, 47, and 54 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of co-pending U.S. Patent Application Publication No. 2009/0163532. Applicant wishes to defer commenting on this rejection until it has matured into an actual rejection.

Claims 42, 47, and 54 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-35 of co-pending U.S. Patent Application No. 10/595,049. Applicant also wishes to defer commenting on this rejection until it has matured into an actual rejection.

Claims 1-2, 5, 7-8, 11, 15, 17-23, 25-26, 29, 36-42, 49-52, and 54 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No. 7,091,214. Applicant respectfully disagrees. Applicant respectfully submits that the claimed invention is not obvious in view of the '214 application. Applicant requests that the Examiner reconsider this double patenting rejection in light of the amended claims in the present Application. Given the differences between the claimed compounds of the present Application and those claimed in the '214 patent, particularly at R_2 and -X-Z-R_{1-1}, Applicant requests that this rejection be removed

Please charge any unpaid fees associated with this Response, or credit any overpayments, to our Deposit Account No. 23/2825, under Docket No. C1271.70022US02, from which the undersigned is authorized to draw.

Dated: February 3, 2010

Respectfully submitted,

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